Financial Accounting: (external user-primary:investor,creditor; tax authority,regulatory agency,customer,labor union,economic planner)investment decisions
https://ycharts.com
https://www.wikinvest.com

	User	Time Focus	Subject Focus
Financial Accounting	external user- primary: investor,creditor; tax authority,regulatory agency,customer,labor union, economic planner investment decisions	Historical Perspective	summarized data for the whole organization
Managerial/ Cost Accounting	internal user-managers plan,organize,run,control a business/organization	Present,Future Oriented	Detailed&Organized by product line

Objective of financial reporting:
Provide useful financial info(entity's eco resources, claim to those resources,change in those resources&claim) about the reporting entity to existing/potential equity investors,lenders,other creditors in making decisions(buy/sell/hold equity/debt instrument; provide/settle loans & other credit) about providing resources to the entity.
Enable users to assess management stewardship, make decision regarding resources allocation, estimate the value of report entity, assess the prospects for future net cash inflow to an entity.

Management Bias: reflect positive management stewardship(job,compensation), meet financial analysis expectations(positive reaction in the capital markets)
FR Standard: (guidelines for disclosure) Generally Accepted Accounting Principles (GAAP)

Financial Statement

Business Organizational Form

1.Sole Proprietorship: business owned by one person.

ad	easy to start/set up; little formality(must maintain business records); founder control over the business(owner-operated business)
dis	unlimited legal liability(full responsibility); net income taxed at personal/individual marginal tax rate; financing limited

2.Partnership: business owned by more than one person associated as partners.

ad	shared control;increased skills & resources
dis	

enough economic resources to initiate or expand the business; partners bring unique skills or resources to the partnership;
partners formalize duty and contributions in a written partnership agreement.

3.Corporation: business organized as a separate legal entity owned by stock/shareholders.(public/private)

ad	
dis	

investors receive shares of stock to indicate ownership claim.
easy to sell shares of stock(transfer ownership); individual can become stockholders by investing relatively small amounts of money; easier to raise funds.
corporation stock is traded on organized stock exchanges(NY Stock Exchange).

Tax & Legal Liability
proprietor&partner personally liable for all debts of business
corporate stockholders pay higher taxes but no personal liability
Dividend: not taxed to personal income

Bond: company pays bond interest expense, you pay income tax

Financial Information (use&user)

Accounting: info system that identifies, records, communicates the economic events of an organization to interested user.
1.Internal User: managers who plan, organize, run a business (marketing manager, production supervisor,finance director,company officer)
2.External User:
①investor/owner: buy/hold/sell stock ②creditor(supplier,banker): evaluate risk of selling on credit赊账 or lending money ③tax authorities: company complies with tax laws or not ④customer: company continue to honor product warranties or not, support its product line ⑤Labor Union: owner have the ability to pay increased wages and benefits ⑥Regulatory Agencies:company operating within prescribed rules and profit earned by legitimate and fair practices
Ethics in Financial Reporting

Business Activities

Accounting Information System keeps track of results of business activities.
1.**Operating**: transactions creating revenues & expenses
cash effects of transactions that create revenues & expenses; affect net earnings
※ Revenue: increase in assets resulting from sale of products or service.
sales revenue service revenue , interest revenue
longer-lived asset:
shorter-lived asset:
inventory存货: goods available for future sales to customers
account receivable: company 's right to receive money/payment in the future/at a later date
※ Expense: cost of assets consumed or services used in the process of revenues.
cost of goods sold, selling expenses, marketing expenses, administrative expenses, interest expenses, income taxes.
account payable: obligations to pay for goods to suppliers(when purchase goods on credit) interest payable: outstanding amounts owed to bank
wages payable: to employees
sales taxes payable, property taxes payable, income taxes payable: to government
net income: revenues exceed expenses (profit)   net loss: conversely
2.**Investing**: acquire resources/assets to run/operate a business
① purchase/dispose resources a company needs in order to operate:
② investment: invest in securities(stocks/bonds) lend money & collect loans
when company has excess cash that it does not need for a while
3.**Financing**: raise cash/collect necessary funds to support/finance operation of business.
sources of outside funds for corporation: (obtain funds)
①**Debt** borrow money/repay loans: take out a loan at banks, borrow directly from investors by issuing bonds (debt securities)
※ lender: loans/lends money to a company
※ creditor: person/entity whom company owes to
※ liabilities: amounts owed to creditors (in form of debt,obligations)
notes payable应付票据: to a bank for the money borrowed
bonds payable应付债券: debt securities sold to investors that must be repaid at a particular date/agreed time in the future (nonpayment - force company sell property to pay debts)
②**Equity** issue(sell)/repurchase shares of stock to investor in exchange for cash(deplete cash by paying dividends):

※ common stock: total amount paid in by stockholders for the shares they purchase.
※ stockholder:
Creditor claims must be paid before Stockholder claims.
Stockholder claims have no claim to corporate cash until claims of Creditor satisfied.
※ dividend: payment to stockholders

Financial Statement

Balance Sheet: assets(business owns),liabilities(owes), SE at a specific time
Basic Accounting Equation: $Assets = Liabilities + Stockholders'\ Equity$ (balanced)

Asset: cash; account receivable; supplies; equipment; Less: Accumulated depreciation; **TOTAL assets**
Liabilities & Stockholders' Equity: ①Liabilities: account/notes payable; **TOTAL liabilities**
②Stockholders' Equity: common shares; retained earnings; **TOTAL Stockholders' Equity**
TOTAL Liabilities & Stockholders' Equity

The heading of a balance sheet must identify the company, the statement, and the date.
Right= cash + (account receivable – AFDA) + notes receivable + inventory* + prepaid insurance + land + (buildings – accumulated amortization of buildings) + (equipments & tools – accumulated amortization of equipment & tools) + Other assets (e.g. Goodwill)
Left = Liabilities + Capital + Revenues – Expenses – Dividends

Classified Balance Sheet: group together similar assets and similar liabilities(similar eco characteristics), using standard classifications and sections
whether company has enough assets to pay its debts as they come due; claims of short-&long-term creditors on company's total assets.

Asset: resources owned by a business that will provide future economic benefit	Liabilities: claims of creditors, obligations of the business resulting from past transactions SE: claims of owners=common stock+retained earnings
①Current Assets(assets that a company expects to convert to cash or use up within one year or its operating cycle,whichever is longer/resources whose benefits will be realized within one year) Listed order: liquidity (the order in which they are expected to be converted into cash) cash; short-term investment; (note/accounts/interest) receivables; inventories; (insurance,supplies)prepaid expenses Non-Current Assets: ②Long-term investments investments in stocks/equity securities & bonds/debt of other corporations that are held/not sold within more than one year; short-term debt(t-bills) long-term assets (land/buildings that not currently using in operating activities) ③Property,Plant,Equipment (assets with relatively long useful lives that are currently used in operating the business) Listed order: Permanency land;buildings;equipment;delivery vehicles;furniture ④Intangible Assets(no physical substance,represent a privilege/right) goodwill; patent; copyright; trademark; trade name(exclusive right of use for a specified period of time)	1.**Liabilities** ①Current Liabilities(obligations that the company is to pay within the coming year or operating cycle,whichever is longer) due within one year (accounts/wages/notes&bank loans/interest/income taxes) payable; bank advances; current maturities/ portions of long-term obligations (payments to be made within the next year on long-term debt) ② Non-Current/Long-term Liabilities (obligations that company expects to pay after one year) (bonds/mortgages/long-term notes) payable; liabilities(lease/pension); derivative instrument 2.**Stockholders Equity** ①Share Capital/Common Stock:(investments of assets into the business by the stockholders in exchange for common/preferred shares; primary ownership interest in a corporation) (Paid in Capital-Primary) ②Retained Earnings (income retained for use in the business/accumulated earnings of corporation that have not distributed to shareholders) Revenue-Expenses-Dividends Paid ③Paid in Capital-Others:

※**Operating Cycle**: average time that it takes to go from cash to cash in producing revenue(purchase inventory,sell it on account,collect cash from customers)

※**Depreciation**: allocating full purchase price/cost of an asset to match its cost to revenues over the entire estimate useful life(long-lived assets' time to generate revenues).

(systematically assigning a portion of an asset's cost as an expense each year,rather than expensing full purchase price in the year of purchase)
Asset (on BE)= Cost less Accumulated Depreciation
(accumulated depreciation over the life of asset)
Less: Accumulated Depreciation (total amount of depreciation that the company has expensed thus far in the asset's life)
Net Book Value/Asset Carrying Amount=Cost of PPE- Accumulated Depreciation
Note: land is not depreciated (infinite life, no 'wear & tear')
Depreciation: Cost – Residual Value = Depreciable Amount / Estimated Total Units of Activity = Depreciable Amount per Unit X Units of Activity During the Year = Annual Depreciation Expense
Depreciable Amount / Estimated Useful Life = Annual Depreciation Expense

Income Statement/Earnings Statement: results of operations for a specific time period revenues & expenses; amount earned during the period (business performed/success or failure of company operation)
provides useful info to investors for predicting future net income.

Single Step ①**Revenue** (Operating&Non-Operating Revenue, Gain(sell on PPE))
②**Expense** (CoGS, Operating&Non-Operating Expenses, Loss(interest/**income tax expense**))
③**Net Earning/Loss/Income**

①**Revenue** net sales, interest revenue ②Product Cost-**Cost of Goods Sold/Sale** ③**Gross Profit**: 1-2 ④Period Cost-**Operating & Administrative Expenses**: operating, general and administrative; D&A
⑤**Finance Expenses**: interest on long-term debt ⑥**earnings/profit before tax**: (3-4-5)
⑦**Income Tax Expense** ⑧**Net Earning/Loss/Income**: (6-7)

Multiple Step ①**Net Sales**: (Sales Revenue) sales – Sales returns and allowances – Discounts
②**CoGS** ③**Gross/Merchandising Profit** (1-2) ④Operating Expenses ⑤**Income/Profit from Operations** (3-4)
⑥Non-Operating Activities: (unrelated to Operations) +other revenues and gains-other expenses and losses
⑦Net Income before income tax(5-6)

The heading identifies the company, the type of statement, and the time period covered. Sometimes, another line indicates the unit of measure, e.g., "in thousands" or "in millions."
Revenue:(generated from product/service sales, result in inflow of assets)
Expense:(costs of assets consumed/service used to generate revenues)
Non-operating Activities: (unrelated to operations)
revenues: interest (note receivables,marketable securities) dividend (investment in capital stock) rent (subleasing store.)
expenses: interest (note/loan payable) gains: sale of PP
losses: recurring causes(accident,vandalism), sale/abandonment of PPE, strike by employees&suppliers

Retained Earnings Statement: amounts & causes of changes in retained earning during the period
(how much of previous income/what portion of profits was distributed to shareholders in dividends, and how much was retained in the business to allow for future growth/expansion.)
Retained Earnings=net income retained in the corporation = net income/loss- dividends=revenues-expenses-dividends

Retained Earnings,day1 Add: **Net Earning** Less: **Dividends** **Retained Earnings**,day2 = day1 + Add - Less

The heading of this statement identifies the company, the type of statement, and the time period covered by the statement.

Cash Flow Statement: business cash receipts and payments,net change in cash for a specific period of time.
(where your business obtained cash during a period of time and how that cash was used)
changes in cash (company's most important resource)

①**Operating activities**: cash receipts; cash payments   cash provided by operating activities a-b
②**Investing activities**: purchase   cash used by operating activities a-b
③**Financing activities**: issue of notes payable; issue of common share; payment of dividends
cash provided by financing activities a+b-c
④Net Increase in Cash: 1-2+3 ="asset~cash" in balance sheet   ⑤Cash,day1   Cash,day2= day1 + Net Increase

The heading of this statement identifies the company, the type of statement, and the time period covered by the statement. Negative numbers are shown in parentheses.

Note: cannot obtained info from SE&BS(prepared on Accrual Basis,but CF on Cash Basis)

Helps users analyze difference between **net income and net cash** provided (used) by operating activities

*If you understand the difference between Net Earnings and Net cash provided or used in operating activities, you can make decisions about **reliability & sustainability of net earnings***
1.investing&financing activities during the period
acquisition/disposal of long-lived assets(PPE), external financing obtained by borrowing/issuing shares.
2.company ability to generate future cash flows. (help users predict amounts, timing, uncertainty of future cash flows)

※**Cash&Cash Equivalents**(short-term,highly liquid investments that can be easily converted to cash within a short period)
Cash used/provided by all activities(operating,investing,financing)

Purchased to invest cash: treasury bills,money market funds,marketable securities,short-term investments.

1.Operating Activities: net cash provided/used by operating activities
>>**converting net earnings from an accrual basis(income statement) to a cash basis**
Indirect Method: convert total net earnings by reconciling(顺从) net income to cash from operating activities
Easier to prepare; Focuses on differences between net earnings and net cash flow from operating activities; Reveals less company information to competitors.
Direct Method: convert each individual revenue&expense account by identifying specific cash receipts and payments Each line of the operating activities section represents a sum of all checks or deposits in a particular category.
Distribution of a stock dividend no effect on cash.

Net Earnings (SE)		
Non-Cash Expenses(SE)	depreciation expenses: reduce earnings but not cash	+
	amortization expenses (intangible assets/bond discount)	+
	amortization expenses (bond premium)	-
Gains and Losses(SE) (non recurring events)	Gain/Loss on sale of assets e.g cash received from sale of long-lived assets(PPE)	-/ +
Changes in non-cash current asset(BE)	increase in current asset accounts (sell more on credit, reduce cash)	-
	decrease in current assets	+
increase in accounts receivable: company sold more on credit (fewer cash sales) decrease in inventory: sold more inventory than it purchased during the period		
Changes in current liability accounts(BE)	increase in current liability account (buy more on credit, increase cash)	+
	decrease in current liability account	-

Carrie Yan

accounts payable: increase>purchase more on credit & paid less cash for goods/services decrease>paid cash for some of its expenses

2.investing activities: Net Cash provided/used by investing activities

>>**analyzing changes in short-term investment and long-term asset accounts**

= Cash Inflow(Sale of PPE) - Cash Outflow(Purchase of PPE)

3.Financing Activities: identify cash flow(outflows) from external sources

>>**analyzing changes in short-term notes payable and long-term liability and equity accounts**

=Cash Inflow(issue of shares/debt) - Cash Outflow(share repurchase, repayment of debt/dividends)

5. Interrelationship of Statements:

(1) retained earnings statement depends on results of income statement.

(2) retained earnings statement & balance sheet

(3) cash flow statement & balance sheet

Note: dividend paid≠expense unearned revenue=liabilities≠revenue

amounts received from issuing stock ≠ revenues unclaimed dividend=liabilities

Annual Report

Public Traded Companies must give their shareholders an annual report(financial+non-financial info) each year.

①Financial Statement ②Management Discussion and Analysis ③Notes to the Financial Statement

④Auditor's Report

SEDAR: mandatory document filling & retrieval system for Canadian public companies.(all Canadian public company info)

Performance Measurement

Sustainable Earnings: net earnings adjusted for irregular/non-recurring items.(level of earnings that most likely to be obtained in the future)
Irregular Items:
discontinued operations: disposal/availability for sale, of an identifiable operating segment
changes in accounting principles

Comparative Analysis:
①**Intracompany**: 2 years for the same company (trends)
Compares an item or financial relationship inside a company with in the current year or with one or more prior years
②**Industry-Average**: average ratios for particular industries(company relative position within an industry)
Compares an item or financial relationship of a company with that of the overall industry
③**Intercompany**: with a competitor in the same industry
Compares an item or financial relationship inside a company with the same item or relationship in one ore more competing companies(company competitive position)

1.**Horizontal/Trend Analysis**: evaluate a series of financial statement data over a period of time

$$\% \ of \ Base-Period \ Amount = \frac{Analysis-Period \ Amount}{Base-Period \ Amount}$$

(different year)
2.**Vertical Analysis**: evaluate financial statement date that expresses each item in a financial statement as a percentage of a base amount in the same financial statement
Base: net sales, net income (in the same year)
3.**Ratio Analysis**: outstanding

①**Liquidity**: short-term ability of the company to pay its maturing obligations on time and to meet unexpected needs for cash (short-term creditors: bankers, suppliers)

$Working \ Capital = Current \ Assets - Current \ Liabilities$	(+)short-term debt paying ability
$Current \ Ratio = \frac{Current \ Assets}{Current \ Liabilities}$ =N:1=N**x**	(+: improved ability to meet maturing short-term obligations)short-term liabilities paying ability, >1 not a sign of good financial health Note: no consider the composition of the current assets
$Inventory \ Turnover = \frac{Cost \ of \ goods \ sold}{Average \ Inventory}$ (+: take the company shorter to sell inventory and less chance of inventory obsolescence) liquidity of inventory	$Days \ in \ Inventory = \frac{365 \ days}{Inventory \ Turnover}$ (-)number of days inventory is held
$Receivables \ Turnover = \frac{Net \ Credit \ Sales}{Average \ Net \ Receivables}$ (+)liquidity of accounts receivables	$Average \ Collection \ Period = \frac{365 \ days}{Receivables \ Turnover}$ (-)number of days receivables are outstanding
$Current \ Cash \ Debit \ Coverage = \frac{Cash \ Provided/Used \ by \ Operations}{Average \ Current \ Liabilities}$	(+: more cash generated from operations to meet current liabilities) short-term debt-paying ability (cash basis)

②**Solvency**: ability of the company to survive over a long period of time,ability to pay interest as it comes due and to repay balance of a debt at its maturity (long-term creditors: bondholders, who want to assess a company's ability to pay interest as it comes due and the principal value at maturity)

$Debt\ to\ Total\ Assets = \frac{Total\ Liabilities}{Total\ Assets}$	(-:decrease obligations to creditors, higher its equity "buffer") % of total assets provided by creditors

$$Free\ Cash\ Flow = Cash\ Provided/Used\ \ by\ Operations - Net\ Capital\ Expenditures - Cash\ Dividends\ Paid$$

(+)cash available for paying dividends/expanding operations

$Times\ Interest\ Earned = \frac{Earnings\ before\ Interest\ Expense\ \&\ Income\ Tax\ Expense\ (EBIT)}{Interest\ Expense}$	(+)ability to meet interest payments as they come due
$Cash\ Total\ Debt\ Coverage = \frac{Net\ Cash\ Provided/Used\ \ by\ Operating\ Activities}{Average\ Total\ Liabilities}$	(+)long-term debt paying ability (cash basis)

debt financing risker than equity financing

③Profitability: income/operating success of a company for a given period of time

(creditors&investors decision to finance company) Note: corporate measures(rest) v.s investor measures(green)

$Profit\ Margin = \frac{Net\ Income(Earnings)}{Net\ Sales}$	(+: profitable,better cost control,greater percentage of net sales goes towards earnings) net earnings generated by each dollar of sales (how much out of every dollar of sales a company actually keeps in earnings) intercompany
$Gross\ Profit\ Margin = \frac{Revenue - CoGS}{Revenue} = \frac{Gross\ Profit}{Net\ Sales}$	(+)margin between selling price and CoGS(proportion of money left over from revenues after accounting for CoGS)
$Return\ on\ Assets = \frac{Net\ Income(Earnings)}{Average\ Total\ Assets}$	(+)overall profitability of assets(how efficient management is at using its assets to generate earnings) = return on investments
$Asset\ Turnover = \frac{Net\ Sales}{Average\ Total\ Assets}$	(+)efficiency at using assets to generate sales/revenues.(amount of sales generated for every dollar's worth of assets) Also indicate Pricing Strategy(low Profit margin tend to have high AT)

$$Return\ on\ Common\ Stockholders'\ Equity = \frac{Net\ Income(Earnings) - Preferred\ Stock\ Dividends}{Average\ Common\ Stockholders'\ Equity}$$

(+)overall profitability of shareholders investment(how much profit a company generates with the money shareholders have invested) Common shareholders' equity = Total shareholders' equity – Preferred shares

$Earnings\ Per\ Share = \frac{Net\ Income - Preferred\ Stock\ Dividends}{Average\ Common\ Shares\ Outstanding}$	(+)net earnings earned on each common share incomparable intercompany, just intracompany
$Price - Earnings\ Ratio = \frac{Stock/Market\ Price\ Per\ Share}{Earnings\ Per\ Share}$	(+: investors expect favourable earnings in future) relationship between market price per share and earnings per share P.E Ratio
$Payout\ Ratio = \frac{Cash\ Dividends\ Declared\ on\ Common\ Stock}{Net\ Income(Earnings)}$	(+:better for investors seeking income) % of earnings distributed in form of cash dividends
$Dividend\ Yield = \frac{Dividend\ Per\ Share}{Market\ Price\ Per\ Share}$	(+:better for investors seeking income) earnings generated by each share, based on market price per share

$$EBITDA\ Margin = \frac{EBITDA}{Total\ Revenue}$$

$$EBITDA = Revenue - Expenses(interest, taxes, depreciation, amortization)$$

$$Market\ Capitalization = Share\ Price \times Number\ of\ Shares\ Outstanding$$

EBITDA=Revenue-Cost from Operations and Assets
EBIT=EBITDA-Depreciation Expenses
Net Earnings=EBIT-Interests-Taxes

Limitation of Financial Analysis: impacted by Alternative accounting principles, Inflation,Professional judgment

Financial Reporting Concepts

1.Standard-setting Environment:
Generally Accepted Accounting Principles(GAAP)
2.Qualities of useful information
3.assumptions in financial reporting
4.principles in financial reporting
5.constraints in financial reporting

Accounting Information System

Accounting Information System: the system of collecting and processing transaction data and communicating financial information to decision makers (double-entry system)
(nature of company's business, types of transactions, size of company, volume of data, information demands of management)

Accounting Transactions

Accounting Transaction: economic event that require recording in the financial statements (assets,liabilities, stockholders' equity items change)
Transaction has dual(double-sided) effect on basic accounting equation.
(increase in asset >> decrease in another account/increase in liability/increase in stockholders' equity)

Basic Accounting Equation: $Assets = Liabilities + Stockholders'\ Equity$ (balance)
Transaction Analysis: process of identifying the specific effects of economic events on the accounting equation.

	Assets	Liabilities	Stockholders' Equity
cash investment by stockholders	cash+		common stock+
note issued in exchange for cash	cash+	notes payment+	
purchase of equipment for cash	cash- equipment+		
cash receipt in advance from customer	cash+	unearned service revenue+	no record revenue until it has performed work
services provided for cash	cash+		revenue+ revenue increases SE
services provided on account	account receivable+		revenue+
payment of rent	cash-		expense- expenses decrease SE
payment of insurance policy for cash	cash- prepaid insurance+		
purchase of supplies on account	supplies+	account payable+	

hire new employees	accounting transaction not occurred		
payment of dividend	cash-		dividend- dividends are reduction of SE but not an expense
payment of cash of employee salaries	cash-		expense-

Transaction:

①Each transaction is analyzed in terms of its effect on A,L & SE.

②Two sides of equation must always be equal.

③The cause of each change in SE must be indicated.

Account

Account: an individual accounting <u>record</u> of increases and decreases in a specific asset, liability, stockholders' equity, revenue, expense item.

T-account: title of account+ a left debt side+ a right credit side

Note: They do not mean increase or decrease but describe where entries are made in accounts(debiting the account: act of entering an amount/making an entry on the left side of an account)

Debit Balance: total of debit amounts exceeds credits.

Credit Balance: total of credit amounts exceeds debits.

Debit & Credit Procedures:

For each transaction, debits must equal credits.

Equality of debits & credits provides the basis for <u>double-entry accounting system</u>.

D/C Rules	Assets		Liabilities		Stockholders' Equity									
					Common Stock		Retained Earnings =		Revenues		-Expenses		-Dividends	
(Normal Balance)	Dr. +	Cr. -	Dr. -	Cr. +	Dr. -	Cr. +	Dr. -	Cr. +	Dr. -	Cr. +	Dr. +	Cr. -	Dr. +	Cr. -

Accounting Cycle

①Analyze business transactions(not all events)(determine their impact on accounting equation)

Analyze each transaction(Source Document: evidence of transaction (invoice)) in terms of its effect on the accounts
transaction>>basic analysis>>debit-credit analysis>>journal entry>>posting

②**General Journal**: Journalize the transactions

transactions recorded in chronological order(by date) before transferred to the accounts.
shows debit & credit effects on specific accounts
General Journal: discloses in one place the complete effect of a transaction; provides a chronological record of transactions;helps to prevent/locate errors because debit&credit amounts for each entry can be readily compared.
journalizing: entering transaction data in the journal.
i)The date of the transaction is entered in the Date column. ii)The account to be debited is entered first at the left. The account to be credited is then entered on the next line, indented under the line above. The in- dentation differentiates debits from credits and decreases the possibility of switching the debit and credit amounts. iii)The amounts for the debits are recorded in the Debit (left) column, and the amounts for the credits are recorded in the Credit (right) column. iv)A brief explanation of the transaction is given.

③**General Ledger**:Post to general ledger accounts

entire group of accounts maintained by a company
General Ledger: contains all asserts, liabilities, stockholders' equity, revenue, expenses accounts.
<u>Posting</u>: Process of transferring journal entry amounts to designated accounts in the ledger

Chart of Accounts Assets	Liabilities	Stockholders Equity	Revenues	Expenses
Cash Supplies Accounts Receivable Prepaid Insurance Equipment Accumulated Depreciation-Equipment Inventory (Merchandising Company)	(Notes/Accounts/Interest/Salaries) Payable Unearned Service Revenue	Common Stock Retained Earnings Dividends Income Summary	Service Revenue	Salaries Expense Supplies Expense Rent Expense Insurance Expense Interest Expense Depreciation Expense

④**Trial Balance**: list all accounts and their balances at a given time/specific date(end of an accounting period,usually monthly), aids in preparation of financial statements.
>>List the account titles and their balances; Total the debit column and Total the credit column; Verify the equality of the two columns

⑤⑥Adjusting Entries: Journalize&Post adjusting entries, Prepare an adjusted trial balance
i)Accrue Additional Expenses: salaries earned but not paid, prepaid insurance covering current period
ii)Unearned Revenue   iii)consistent with "revenue recognition" & "matching" concepts
iv)assumption: materiality(exclude whats too small to be relevant)

⑦Prepare financial statements(SE,RE,BS): transfer all accounts & accounts balance to FS

⑧Journalize&Post closing entries:
Close out all temporary accounts and transfer the balances to retained earnings.(Revenue,Expense,Dividends Declared)

⑨Prepare a post-closing trial balance

Limitation:

Revenue Recognition Principle: revenue must be recognized in the accounting period in which it is earned.
Merchandising Company: revenue earned when merchandise is sold(at the point of sale)
Service Company: revenue earned when service is performed.

Matching Principle: Expenses must be recorded in the same period in which the revenues they helped produce are recorded.

Quality of Earnings:
way to present company operating performance & measure earnings during the period:
Cash Accounting: (violates RRP & MP, not in accordance with GAAP)
revenue recorded when cash is received; expenses recorded when cash is paid.
Accrual Accounting: (BS,SE prepared on Accrual Basis)
revenue recorded when earned; expenses recorded incurred.
Transactions that have not yet resulted in outflow/inflow of cash must be recorded.
"adjusting entries" required to comply with the RRP & MP.
Accrual earnings rely on management's judgment & expectations to record transactions.
Trades-off: (i)Relevance: The metric is timely and has predictive power; it can confirm or reject prior predictions and has value when making new predictions. (ii)Reliability: The metric is verifiable, free from error or bias and accurately represents the transaction
1.Adjusted Entries: prepayments
Prepaid Expenses: cash spent but item/service acquired has not been used/consumed.(current asset)
Unearned Revenues: cash collected but revenue has not been earned because goods/services have not yet been delivered(current liability)
2. Adjusted Entries: Accruals
Accrued Revenues: Revenue has been earned, but not collected (current asset)
Accrued Expenses: Expenses were incurred, but not yet paid (current liability)
Note: these transactions not yet recorded because no cash changed hands

Merchandising Operations

Three business Type:
Service Firm: provide expertise, use of facilities to customers; products not tangible/storable. no inventory of final product.
Merchandising Firm: purchase goods(not transformed) and sell to customers; have inventory to ensure goods available to meet customers demands.

Manufacturing Firm: use labor & equipment to transform raw materials into finished goods. have inventory consisting of goods at all stages of the production process;
much variation in nature of production process & relative amounts of different costs.

Merchandising Operation: M companies buy&sell merchandise for profit
Retailer: M companies that purchase&sell directly to consumers
Wholesaler: sell to retailers.

Revenue: ①Sales (Revenue) sale of merchandise ②other revenue(rental income)
Expense:
①Cost of Goods Sold(CoGS): cost of acquiring merchandise for sale to customers
②Operating Expenses(salaries, insurance,rent,depreciation): incurred in the process of earning sales revenue

Operating Cycle: time it takes to go from "cash to cash" in generating cash revenues from goods purchased for sale to customers.

Flow of Costs: (period:)

$$Beginning\ Inventory + CoG\ Purchased = CoG\ available\ for\ Sale = CoGS + Ending\ Inventory$$

Note: for perpetual inventory system:

Inventory Account System: (record at its cost)
①**Perpetual**: detailed records(updated constantly) of cost of each inventory purchase&sale >> determines CoGs each time a sale occurs
②**Periodic**: >> determines CoGs at the end of accounting period
Net sales (Same), Net Purchase (Purchase – R/A/D), Cost of Goods Purchased = Net Puchase – Freight in, COGS: = Cost of Goods Available for Sale – Ending Inv. COGAS = Beginning Inv + COGP.

Purchases Less:Sales Returns&Allowances Less:Purchase Discounts **Net Purchases** Add:Freight **Cost of Goods Purchases**	**Opening/Beginning Inventory** Add:Cost of Good Purchased **Good available for Sale** Less: Ending Inventory **Cost of Goods Sold**

Sale Invoice: support for sale (date of sale,customer name,total sale price..)
Cash Register Tape: evidence of cash sales.

Account: Each Sale
Account Receivable/Cash increase(Dr) + Sales Revenue increase(Cr) CoGS increase(Dr)+Inventory decrease(Cr)

Freight Costs:
FOB(Free On Board): where ownership passed to buyer
①Shipping Point: seller places goods fob the carrier, buyer pays freight costs
Freight Cost/In $\in$ cost of inventory/merchandise purchased (buyer Account: Inventory ↑)
②Destination: seller places goods fob to buyers' place of business, seller pays freight
Freight Cost/Out $\in$ operating expense (higher invoice price for goods)

Purchase Returns & Allowances:
Goods damaged/defective/inferior quality/not meet purchaser specifications

Purchase Returns: purchaser return goods to sellers for credit/cash refund.
Purchase Allowances: purchaser keep the goods with a reduction of price.

Account: Sales Returns & Allowances increase(Dr)+Account Receivable decrease(Cr)
Inventory increase(Dr)+CoGS decrease(Cr)

Note:Sales Returns & Allowances is a contra revenue account to Sales Revenue.
Normal Balance of SRA is debit. Use SRA instead of debiting Sales Revenue.

Purchase Discount: credit terms of a purchase on account may permit buyer to claim a cash discount for prompt payment
(buyer save money;seller shorten OC by converting AR into cash earlier)
Credit Terms: amount of cash discount and time period during which it is offered, also indicate length of time in which buyer is expected to pay full invoice price.
2/10 (2% cash discount on invoice price less returns&allowances, if payment made within 10 days of invoice date (discount period))
1/10 EOM(within first 10 days of next months) n/30 (invoice price less returns&allowances is due 30 days from invoice date)

Account: Sales Discounts increase (Dr)

Note:Sales Discounts is a contra revenue account to Sales Revenue. Normal Balance is debit.
Account: Inventory ↓ (b/c inventory records as it cost)
passing up purchase discounts=paying interest for use of money

$$Quality\ of\ Earnings = \frac{Net\ Cash\ Provided\ by\ Operations}{Net\ Income}$$

Inventory

Perpetual Inventory System:
Beginning of Period+CoG purchased=CoG available for Sale- CoGS=Ending Inventory

Periodic Inventory System:
Beginning of Period+CoG purchased=CoG available for Sale-Ending Inventory=CoGS

1.Raw Material Inventory:
Ending Inventory of Raw Materials=Beginning Raw Material Inventory+Purchased of RM-Cost of Material Used
2.Work-In-Process Inventory:
Ending WIP Inventory=Beginning WIP Inventory+Co Material Used+Direct Labor+Manufacturing Overhead-Cost of Good Manufactured
3.Finished Goods Inventory:
Ending FG=Beginning FG+ Cost of Good Manufactured-Cost of Good Sold

Raw Materials Inventory Cost of Material Used = Beginning Inventory of Raw Materials + Purchase of Raw Materials – Ending Inventory of Raw Materials
Work-in-Progress Inventory Cost of Goods Manufactured = Beg. Inv. Work-in-progress + Cost of Material Used + Material Overhead + Direct Labour + Manufacturing Overhead – Ending work-in-progress inventory
Finished Goods Inventory COGS = Cost of goods manufactured + Beginning Finished Goods Inventory – Ending Finished Goods Inventory

Managerial/Cost Accounting

Product Cost: getting a product/service ready for sale to customers.
Gross Margin=Revenue-Product Costs. If product not sold, included in inventory
Inventory Equation: COGS = beginning inventory + cost of goods purchased - ending inventory

Prime Cost sum of direct materials and direct labour
Conversion costs sum of direct labour and manufacturing overhead

Period Cost: office rent, marketing, administration(expenses incurred in the period)

Cost-Volume-Profit(CVP) Analysis

$$Contribution\ Margin = Revenue - Variable\ Cost$$

$$Unit\ Contribution\ Margin = Unit\ Price - Unit\ Variable\ Cost$$

$$Contribution\ Margin\ Ratio = \frac{Contribution\ Margin}{Total\ Sales} = \frac{Unit\ Contribution\ Margin}{Unit\ Price}$$

$$Profit\ Before\ Taxes = Revenue - Variable\ Costs - Fixed\ Costs = Contribution\ Margin - Fixed\ Costs$$

$$= (Price - Unit\ Variable\ Cost) \times Unit\ Sales\ Volume - Fixed\ Costs = Unit\ Contribution\ Margin \times Unit\ Sales\ Volume - Fixed\ Costs$$

$$= Unit\ Contribution\ Margin \times Number\ of\ Units\ Sold\ above\ BreakEven$$

$$Taxes\ Paid = Profit\ Before\ Tax \times Tax\ Rate$$

Target Profit Analysis

$$Unit\ Sales\ to\ attain\ Target\ Profit = \frac{Target\ Profit + Fixed\ Expense}{Unit\ Contribution\ Margin}$$ (in units)

$$Sales\ to\ attain\ Target\ Profit = \frac{Target\ Profit + Fixed\ Expense}{Contribution\ Margin\ Ratio}$$ (in dollars)

When extending more lenient credit terms the firm hopes to increase revenues through the sale of more units

These benefits are offset by financing costs and the increased risk of non-payment.

Evaluation of these decisions can use an NPV framework (more on this later..)

$NPV = PV(Future\ CFs) - CF_0$

where CF_0 represents a cash outflow if when credit terms are loosened because of an additional investment in receivables

Generally, if a firm decides to **tighten credit** (more restrictive policy), sales will decline

The firm must monitor A/R by customer and take action in case of non payment or late payments

- Charge interest on outstanding balances
- Notify customer of arrears (email, mail, telephone)
- Take legal action or sell the receivable to a collection agency
- Write off the debt as uncollectable.

Profit Planning: estimate profit at various levels of sales

1.**Breakeven Volume**: sale volume at which profit is zero
(contribution margin covers only fixed costs)

$$Break-Even\ Point = \frac{Fixed\ Expenses}{CM\ Per\ Unit}(units\ sold) = \frac{Fixed\ Expenses}{CM\ Ratio}(total\ sales\ dollars)$$

2. $$Margin\ of\ Safety = \frac{Current\ Sales - BreakEven\ Sales}{Current\ Sales}$$ =(Revenues-breakeven revenues)/revenues

MoS: 1 – Breakeven Sales/Current Sales = (Revenues – Breakeven revenues)/Revenues.

(evaluate risk by considering the amount by which expected revenues exceed breakeven revenues)

%Change in profit = %Change in Sales *(1/MoS)

Sales increase X%,percent change in profit before taxes=X% ×(1/Margin of Safety)

$$Operating\ Leverage = \frac{Fixed\ Costs}{Total\ Costs} = \frac{Fixed\ Costs}{Fixed\ Costs + Variable\ Costs}$$

firms can influence the proportion of fixed&variable costs they incur
the greater the fixed cost, the more sensitive the company's profit to changes in volume

Working Capital Management

$$Working\ Capital = Current\ Assets - Current\ Liabilities$$

Current Ratio=C Asset/Current Liabilities   Quick Ratio=(Cash+Marketable securities+AR)/CL

Sales Growth Effect on Cash: Increasing Sales(investment in inventory,Account Receivable+)>>Decreasing Cash

$\Delta Cash = S_{t-1} - bS_t - b(S_t - S_{t-1})$ S:sale b:cash production cost   (1-b):unit CM

g:monthly sales growth rate $S_t=S_{t-1}\times(1+g)$ (rate at which the firm can grow without needing or generating cash)

$\Delta Cash = S_{t-1}[1-b(1+2g)]$ $\Delta Cash = \alpha S_t + (1-\alpha)S_{t-1} - b\beta S_t - b(1-\beta)S_{t-1} - b\tilde{a}(S_t - S_{t-1})$

α=firm's credit policy as the percentage of sales collected this month
1-α=balance of sales collected in the month following sales (one month lag)
β=proportion of this month's production costs paid in this month   1-β=proportion of production costs paid next month.
γ=percentage of the firm's monthly sales tied up in inventory   1/γ=monthly inventory turnover ratio

$$\Delta Cash / S_{t-1} = (1-b) + [\alpha - b(\beta + \gamma)]g$$

Receivables Turnover=Credit Sales/Average Receivables   Days in receivables=365/RT
Payables Turnover(Accounts Payable Deferral Period)=CoGS/Average Payables   Days in payables=365/APDP
Inventory Turnover=CoGS/Average Inventory   Days in Inventory=365/ITR
Operating Cycle=Inventory Conversion Period+AR Conversion Period=Days in I+R
Cash (Conversion) Cycle=OC-Account Payable Period=OC-Days in P=Days in I+R-P
(companies have low/negative CC have power over their suppliers)

Effective annual interest rate, Cost to Forgo Discount $k = \left(1 + \frac{discount\%}{1 - discount\%}\right)^{\frac{365}{n}} - 1$